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Amy S. Fleischer

# Thermal Energy Storage Using Phase Change Materials

## Fundamentals and Applications



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# Preface

Phase Change Materials are being used for energy storage and thermal abatement in a wide range of applications. These applications cover a wide range of sizes: from small portable electronics to large-scale concentrating solar plants; and a wide range of temperatures: from the  $-40\text{ }^{\circ}\text{C}$  of space-based application to the  $500\text{ }^{\circ}\text{C}$  and up of solar energy applications.

In order to properly work with these fascinating materials, it is necessary to understand their fundamental physical behavior, their thermophysical properties, and the challenges inherent in working with them.

This monograph is intended to provide a comprehensive overview of phase change materials and the current state of the art in their design and application.

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